TOP 10 WAYS TO USE 550 CORD • AIRMAN XTREME • HOT FILES • AIRMAN BASICS

Airman

OF AMERICA'S AIR FORCE

QUARTERLY

FALL 2005

DEFUSING THE ENEMY

TEAM DISARMS IEDs ONE AT A TIME

F/A-22

AIR DOMINANCE FOR DECADES

LIFTED TO SAFETY

AIR FORCE HELPS HURRICANE VICTIMS

WWW.AF.MIL

CONTENTS

Cover Story

As members of the only Baghdad-based Air Force Explosive Ordnance Disposal unit that regularly operates "outside the wire," EOD technicians Staff Sgt.'s Vinnie Pagano, Carey Gibson and Senior Airman Kevin Cummings (foreground) employ one of their many tools, the TALON man-transportable robot. These Airmen and their team members provide immediate threat response within Sather Air Base, the Baghdad International Airport and a 200-square mile corridor around southwest Baghdad.

photo by Master Sgt. Scott Wagers

Features

Departments

Airman

Official Magazine of the U.S. Air Force
Fall 2005, Volume XLIX, Number 7

Airman is published quarterly by the Air Force News Agency (AFNEWS) for the Secretary of the Air Force Office of Public Affairs. As the official magazine of the U.S. Air Force, it is a medium of information for Air Force personnel. Readers may submit articles, photographs and artwork. Suggestions and criticisms are welcomed. All pictures are USAF photos unless otherwise identified. Opinions of contributors are not necessarily those of the Air Force.

Editorial offices: *Airman, AFNEWS/NSPA, 203 Norton St., San Antonio, TX 78226-1848. Telephone (210) 925-7757; DSN 945-7757, fax (210) 925-7219; DSN 945-7219. E-mail: editor@afnews.af.mil*

Airman can be found on Air Force Link, the Air Force's official World Wide Web home page (www.af.mil/news/airman). For unit subscriptions, administrative support offices can send the unit's mailing address and the total number of military and civilian Air Force people via e-mail to afnspub@afnews.af.mil to start receiving copies on a regular basis. For personal subscriptions, send check or VISA/MasterCard number (including expiration date) to Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. Telephone credit card orders 8 a.m. - 4 p.m. Eastern time to toll free 1-866-512-1800; fax (202) 512-2250 24 hours. Call for costs. Back issues may not be available. For change of address, write Government Printing Office, Superintendent of Documents, Mail Stop SSOM, Washington, D.C. 20401. Distribution: one copy for approximately 3 military and civilian personnel. AFRP 35-1.

Summer 2005 Airman brings reader comments

Honorable Airman
The coverage and photography in the July issue was outstanding! Senior Airman Brian Kolfage's story ["Surviving and Thriving"] and photos brought tears to my eyes.

Master Sgt. Lisa Troglio
Guatanamo Bay, Cuba

Kudos
My thanks to you and the staff for the outstanding publication! Keep up the good work. I enjoy the coverage of the young men and women of our Air Force, particularly the Reserve and National Guard troops. I retired in 1975 and find today's military different, but just as dedicated and outstanding in their performance of duty as anytime in our history.

L. J. Fleming
Via e-mail

I just finished reading your July issue and have to admit it's one of the best in recent memory. I really enjoyed your Top 10 things to do while in the Air Force article, "Marlins & Platypuses." Super advice, especially the reminder to eat my peas and spinach. Over all — excellent writing, photography, editing and design — congratulations to the entire staff. This one is as close to perfect as possible!

Lon O. Pollard
Defense Logistics Agency

'How To' attracts attention

I was impressed with the entertainment value of "How to Dodge a Surface-to-Air Missile" in the July issue. Not only is the information essentially accurate, but it's refreshing to see Airman venture a little risk beyond its predictable politically correct and feel good content. We appreciate you getting behind the "force" part of the Air Force mission.

Maj. Barry Luff
Elmendorf Air Force Base, Alaska

It is too bad Airman has to reduce to a quarterly frequency. The new look is great and the articles are as good or even better! Also, the new "How to …" department is a good addition. I hope to see more of the same. However, it would seem that the drawing depicts the result of a friendly fire incident. Those exploding vehicles in the final frame look like U.S. (and British) Army M270 Multiple Launch Rocket System artillery launchers. Nonetheless, thanks for an outstanding publication!

Stephen Reeves
Sheppard Air Force Base, Texas

Editor's note:
We appreciate all the feedback we've received regarding our new "How to …" department. We were definitely looking for a different approach at providing information to our readers, and will use your feedback in gauging its effectiveness. In the planning stages for the Summer 2005 issue, "How to Dodge a Surface-to-Air Missile," we collected imagery for our illustrator to depict images so our readers could recognize them in general terms, not necessarily needing details to pinpoint particular model numbers, etc. For the SAM, we actually downloaded an image from a video game page. By no means did we intend it to be represented as a U.S. Army SAM and we apologize for that. We realize we are not the experts, so we coordinated this page, like we do all our content for the magazine, and were never alerted to any concern surrounding the imagery. Going on that information, we published the page with the confidence that it was a good product. We apologize for the error and will strive to ensure our coordination efforts prevent issues like these in the future. Thank you again for all the feedback, it helps make our publication even better.

In Air Force history

1st Fighter Wing has its place in Air Force annals

courtesy photo

Maj. Gen. Benjamin D. Foulois

The 1st Fighter Wing at Langley Air Force Base, Va., doesn't just arbitrarily call itself the first, it many ways, it was the first.

On Jan. 16, 1918, Brig. Gen. Benjamin D. Foulois, chief of the Air Force, American Expeditionary Force, ordered an Army officer by the name of Maj. Bert M. Atkinson to organize a band of American aviators into the 1st Pursuit and Organization Center. It consisted of the 94th, 95th, 147th, 185th and the Air Force's oldest fighter squadron, the 27th.

America's inaugural multi-squadron fighter unit — the 1st Pursuit Group of the American Expeditionary Forces — was created in May 1918 and deployed to France to fly French aircraft.

Many wars later, the unit became the first to get the F-15 Eagle in December 1975.

First to fight in the Great War, first to fly the F-15 Eagle, the 1st Fighter Wing today is also the first combat outfit to receive the F/A-22 Raptor [see "Air Dominance for Decades," Page. 14].

Today's 1st Fighter Wing consists of three flying squadrons: the 27th, 71st and 94th Fighter Squadrons. The wing is still stationed at Langley, among the oldest continuously active air bases in the United States.

Other group achievements include:

- The first U.S. group level unit to enter air combat.
- The first U.S. unit to destroy an enemy aircraft in World War I.
- The parent unit of the first recipient of the Medal of Honor for aerial combat.
- The parent unit of the two highest scoring U.S. aces in World War I.
- The only U.S. Army fighter group from 1919 to 1932.
- The first unit equipped with the Lockheed P-38 Lightning.
- The first fighter unit to deploy en masse over the North Atlantic.
- The first American unit to destroy a German aircraft in World War II (the group shared the victory with another unit.)
- The first U.S. jet fighter unit.
- The first operational unit to fly the F-15 Eagle.
- The first tactical fighter unit to deploy to Saudi Arabia in support of Desert Shield.

(The 1st Fighter Wing history office contributed to this article.)

by Tech. Sgt. Ben Bloker

IRAQ'S CROSSROADS

Senior Airman Nathan Simmons, left, and Staff Sgt. Johnathan Baker watch troops and cargo load onto a British C-130J which took off despite white-out conditions that halted flightline activity at Baghdad International Airport. Airman Simmons, an active-duty KC-135 crew chief from McConnell Air Force Base, Kan., and Sergeant Baker, an Air Force Reserve C-17 crew chief from Charleston Air Force Base, S.C., are assigned to the 447th Aircraft Maintenance Squadron in Baghdad.

by Tech. Sgt. Jason Tudor
photos by Master Sgt. Scott Wagers

Deploying to Baghdad means moving a whole lot of passengers and cargo

When an Airman mentions he's been "outside the wire" in Iraq, that usually raises eyebrows. It's a little like telling someone you've "pressed carpet" inside the White House. It's simply not done.

Few Airmen assigned at Sather Air Base, Baghdad, Iraq, will ever experience what life is like outside the wire — but on their tour to Sather, they will be moving passengers and cargo to points all over the Iraqi theater.

Since May, the 447th Air Expeditionary Group here has done just that: 5,000 missions, 24,000 tons of cargo and 148,000 boots on the ground or returning home.

"We do passengers and cargo," said Col. Dan Kornacki, the group's commander. "We get people into Iraq and on their way to the mission. That's the heart of what we do."

Someone checking for that heartbeat will only need to press their ear to the flightline. It's found inside the Camp Victory complex across from Baghdad International Airport on the southwest side of the city. There, the buzz of HH-60 helicopters, C-130s from five different countries, C-17s and a myriad of other aircraft are touching down, mostly at night.

Almost all of them will make a stop at Sather's aerial port, where 1st Lt. Jennifer Kennedy's team will greet them. Along with the U.S. military, other countries and civilian contractors work to keep the port and passengers moving.

"The biggest customer we have here is the Army. That's our primary mission — to get them in and out of here," she said. "The Brits and the Aussies also have people stationed here. They get two to three aircraft per day."

Captured enemies also stop here before being moved to one of two camps in country, including Abu Ghraib prison. It's a process overseen by security forces troops — who serve along side Soldiers — guarding more than 7,000 detainees so far.

"There is no more noble character than the American Soldier or an Airman who is fighting for democratic freedom in the world," said Army Col. Jim Brown, 18th Military Police Brigade commander, when he presented 126 combat patches to the Air Force security forces. "They do so in the knowledge that democratic security is not just the best form of security for our allies, our friends and our Iraqi partners today in Iraq, but also the best form of security for America herself."

(Clockwise from top left) UH-60 Blackhawk Flight Medic Army Specialist Michael Bishop, left, receives medical treatment instructions from Tech. Sgt. J.B. Moody before he loads his patient, Army Specialist Cedric Johnson, aboard a helicopter to take him for further treatment, while Medical Technician Senior Airman Eric Dole readies the transport litter that holds the patient with a severely fractured forearm; Tech. Sgt. Brian McWaters, deployed to Baghdad from Kadena Air Base, Japan, referees an Army/Air Force game of flag football; Tech. Sgt. Dan Olds peers through the window of a 60-K loader while Guardsmen unload supplies from a C-17. Sergeant Olds, an Air Force reservist, is from Peterson Air Force Base, Colo.

VIP's daily

But there's more to Sather than pallets, people and prisoner movement. Almost daily, there is a VIP on the doorstep. The guest list includes the secretary of defense, attorney general and secretary of state. It also includes prime ministers and politicians from coalition countries as well as a litany of support people who work to continue the process for democracy in Iraq.

Most VIPs pass through the group's headquarters building. Dubbed the "Glass House" for its ornate rooftop mosaics of mirrors, the building formerly served as Saddam Hussein's personal military terminal. One day, the British prime minister bumped into the attorney general of the United States. That's not the start of a joke. It happened. Colonel Kornacki was there.

"When he introduced himself as 'the attorney general of the United States,' I just went, 'Wham!' This is the guy! That's when it was the most significant for me," the colonel said.

Quality of life

The group also deals with adversity. A storm almost wiped the camp off the sands of Baghdad, and civil engineers are replacing 120 tents with more modern "Alaska" style tents. The difference?

"The new tents stay cooler and offer more space," said Senior Airman Aaron Nichols. He took charge of the $4 million project with a handful of Airmen, and he hopes to have all the tents done before his rotation ends.

"Working hard makes the time go by faster," he said.

While the tents provide shelter, the vital medical mission keeps people safe. The 447th Expeditionary Medical Squadron is a first stop for many needing medical aid, including Soldiers, Marines and Sailors.

They recently treated a spider bite, a broken arm, a gunshot wound to the hand and an Iraqi Special Forces soldier shot in the side. Those that cannot completely heal here are flown out on an HH-60 helicopter to a contingency hospital in Balad.

Meanwhile, many Airmen are experiencing their first deployment. They're learning what a 200-foot walk to the shower, a 50-foot walk to the bathroom and 125-degree days are like.

Senior Airman Doreen Prasad flew 5,121 miles to get to Iraq from her home station in Japan. By Air Force specialty,

Within 10 minutes of arriving at Sather Air Base, Iraq, Secretary of Defense Donald Rumsfeld and his entourage are given an aerial convoy by UH-60 Blackhawks and AH-64 Apache helicopters.

she works in public health. For her tour here, however, she's escorting third-country nationals — a sort of watch-dog job. Just because she's not doing her regular job, doesn't mean there's no reason to be concerned, she said.

"It's been a great deployment," said the Fiji native assigned to Air and Space Expeditionary Force 5/6. "The key is to have a good attitude and understand there are all kinds of people with different personalities."

Also important — finding ways to pass the time. There are enough guitar players walking around Sather to form a band the size of the Gypsy Kings. Many Airmen play video games, watch movies, work out or attend one of many chapel activities.

For most of the 750 Airmen here, most believe there's no need to impress someone by saying you've been "outside the wire." The real rush is ensuring passengers and cargo reach their final destinations, whether that is at home or in theater.

"We have an evolving mission with the war on terrorism and the transformation of our role here to the Iraqi government and the Iraqi military," Colonel Kornacki said. "What we do is both important and relevant."

Air Force in Iraq

Aside from the team at Sather, the military landscape in Iraq includes three major Air Force missions supporting Central Command's effort. They include:

■ 332nd Air Expeditionary Wing, Balad Air Base. Primary airpower and logistics hub in Iraq. F-16 Fighting Falcon, Predator and HH-60 aircraft assigned. Operates Air Force theater hospital and provides inter- and intratheater aeromedical evacuation flights and aerial port operations. Provides airspace control for all of Iraq. Oversight of Air Force personnel directly supporting Army shortfall requirements. Located 42 miles north of Baghdad.

■ 407th Air Expeditionary Group, Ali Base. Ali Base, which is located near the town of An Nasiriyah, is home to the 407th Air Expeditionary Group, and is the U.S. Air Force's only major airfield in southern Iraq. The group operates C-130 Hercules and trains more than 100 Iraqi Air Force members how to maintain and fly C-130s. Ali Base's more than 1,100 Airmen reside on Logistical Support Area Camp Adder, which is home to the U.S. Army's 122th Support Group, and houses 3,500 sister servicemembers and 3,300 coalition forces.

■ 506th Air Expeditionary Group, Kirkuk Air Base. Located in Kirkuk, Iraq. Group provides support for more than 3,000 Soldiers and contractors. Provides logistical support for Iraqi pipeline surveillance. Trains Iraqi fighter pilots and firefighters.

Airmen are also providing a wealth of support to Central Command in a variety of roles in Iraq and outside the country.

Airman 1st Class Steven Ledwich, 97th Security Forces Squadron, mans a .50-caliber machine gun to provide perimeter security to more than 30 Soldiers who are transferring detainees from buses to a U.S. C-130 Hercules. Airman Ledwich deployed from Altus Air Force Base, Okla.

CROSSING INTO THE BLUE

by Staff Sgt. Karen J. Tomasik and photo by Master Sgt. Val Gempis

As a child growing up, the last thing on Capt. Zensaku Munn's mind was joining the military, let alone becoming an Air Force C-21 pilot. That was then, when his father, now retired Lt. Col. James Munn, was an enlisted Airman serving tours in Japan at Yokota and Misawa Air Bases.

Captain Munn was born in 1978 at Tyndall Air Force Base, Fla., to the young staff sergeant and his Japanese wife, Takako.

"I remember when I was growing up at Yokota, going to school at East Elementary School and breaking my arm on a big tree still here to this day," said Captain Munn, now serving as the chief of wing operations plans for the 459th Airlift Squadron at Yokota. "Growing up I thought that one military person in the family was enough and I didn't even consider joining the military because of that."

But time changes everything, and while the captain was attending Misawa High School he hoped to return to Japan one day. He then decided to apply for and was accepted at the Air Force Academy, graduating as a member of the Class of 2000 with a major in Foreign Area Studies with emphasis in Asia.

"I took Japanese language classes at the Academy and remember having a hard time with it because I grew up bilingual and only knew the common usage of Japanese — not the classic style taught in class," the captain said. "I still correspond with my teacher today and now I'm the one teaching her things about the language evolving, since I am stationed in Japan and experience the changes in the language first hand."

Also a dedicated student of martial arts, Captain Munn studied both Tae Kwon Do and Okinawan Shorin-Ryu earning his black belts. He now studies a more advanced form called Kyokushin Karate.

"I have enjoyed studying martial arts my whole life, starting when I was a child in Japan," he said. "I've excelled in both styles over the years, but the new style I study now is even more intensive and very challenging. I am really appreciative of being able to continue my studies while in the Air Force."

The captain takes advantage of robust off-base activities like participating in a social club for people of half-Japanese descent like himself, called the Hapa Japan Club.

When reflecting on where life has taken him, Captain Munn said, "Years ago I never thought I'd be in the Air Force stationed in Japan, but I'm so grateful for all the opportunities I've had to join the Air Force and start traveling the world myself."

Capt. Zensaku Munn (far left) poses with his cousins while visiting the graves of his grandparents in Japan. Growing up in Japan as a young child, the captain and his family visited many shrines in the country. He (above) performs the "Chozuya" at the 400-year-old Haijima-daishi Temple near Yokota Air Base, Japan. The Buddhist ritual involves pouring water over the hands and rinsing the mouth in order to purify the body and soul before prayer.

Integrity First

Service Before Self

Excellence in All We Do

"We do not expect everybody in the Air Force to have the same values. We are talking about core values. We have identified three of them. Those values are required, and without them, you shouldn't be in the Air Force."

Rabbi Arnold E. Resnicoff
Special Assistant for Values and Vision

What do the core values mean to you?

Staff Sgt. Erica Robinson
5th Operations Support Squadron
Minot Air Force Base, N.D.
Years in Service: 7

"Core values are the way I live my life on duty, or off, and I will continue to even when I'm not in the military, regardless of the job I have. They can be inspirational and trying at times but they will always be a part of my life every day."

Staff Sgt. Travares Dozier
43rd Airlift Wing
Pope Air Force Base, N.C.
Years in Service: 6

"They are the building blocks to our great force. For me, they are my checks and balances that not only apply to my military career, but to my everyday life."

Master Sgt. Richard S. Guinan
97th Air Mobility Wing
Altus Air Force Base, Okla.
Years in Service: 21

"I describe the core values as standing by your decisions and doing the right thing, whether or not it is the most popular or most convenient thing to do. Life is not a popularity contest."

Tech. Sgt. Joseph Romero
Sather Air Base, Baghdad, Iraq
Deployed from Kadena Air Base, Japan
Years in Service: 15

"It defines who we are and tells us how we're going to finish. It's our morals. It's how we conduct business on and off duty."

courtesy Lockheed Martin Corp.

More thrust

A Raptor specialty is the F119 engine's ability for thrust vectoring. The pilot is able to angle the engine's thrust up and down 20 degrees. This provides a high level of maneuverability during high-angle-of-attack maneuvers.

by Staff Sgt. Tanika Bell

Paperless maintenance

Raptor maintainers and technicians use portable maintenance aids to keep track of maintenance history, document completed or on-going work, plug into the aircraft to diagnose problems and to look up technical orders.

courtesy Lockheed Martin Corp.

Futuristic cockpit

The cockpit's six liquid-crystal digital displays and a heads up display (colored green), inform the pilot about tactical situations, self-defense and attack information and other sub-system data. The system gives the pilot a simple and complete picture of the tactical situation and superior situational awareness.

F/A-22

AIR DOMINANCE FOR DECADES

by Master Sgt. Orville F. Desjarlais Jr.
opening photo courtesy Lockheed Martin Corp.

By now, most people know the F/A-22 Raptor is a lean, mean fighting machine.

But what about the people who fly it and fix it? What's it like to know your work, your aircraft, your mission, is to provide American air dominance for decades to come?

"Everybody is excited (about getting the F/A-22)," said Lt. Col. James Hecker, 27th Fighter Squadron commander, whose Langley Air Force Base, Va., squadron is the first operational unit to fly the Raptor.

"We're the people with the new toy on the block. The esprit de corps, excitement, pride and teamwork to make the plane go [initial operating capability] is incredible," Colonel Hecker said.

For members of the Air Force's oldest fighter squadron, the F/A-22 means different things to different people.

Maintenance friendly

With 40 percent fewer parts than current fighter aircraft engines and many of its vital components located on the bottom of the engine for easier access, the F/A-22's F119 engine is a hit in the maintenance community.

"As for reliability, I can't say [enough about] how great it is," said Chief Master Sgt. Larry Martin, an aircraft maintenance unit superintendent. "Also, we can replace an engine in 90 minutes, as opposed to about four hours with the F-15."

Airman David Zepeda, a 19-year-old from South Bend, Ind., likes the newness of the program.

"I'm proud because we're at the beginning of this program and starting out with nothing, so everything we do now will be used by people in the future," said the 1st Component Maintenance Squadron aerospace propulsion apprentice. "It's cool that we're part of a new jet program."

Another unique Raptor aspect is the maintainers' ability to use portable maintenance aids that resemble a laptop computer. Maintainers on the flightline connect the handheld devices to the Raptor and perform operational checks, look up maintenance history and technical data, and document work done on the aircraft. No longer are reams and reams of technical orders required on the flightline — saving time and paper.

Pilot's dream

"Because of all the things it can do, it takes fewer Raptors to complete a mission than F-15s or F-16s," said Capt. John Echols, a Langley F/A-22 pilot. "Saying the F/A-22 is a great aircraft is an understatement. It's well worth every cent."

Instead of cockpit knobs and controls, F/A-22 on-board computers do much of the flying for pilots, freeing them up to concentrate on the overall battle or mission.

"We can go against threats that F-15s and F-16s wouldn't even think about trying to attack," Colonel Hecker said.

The air and ground threats the F-15 can no longer counter will be defeated by the F/A-22, according to Lockheed officials.

Perhaps the biggest advantage F/A-22 pilots have over others is the ability to shoot at the enemy before the enemy even knows a Raptor is there — that, and blazing speed. The faster they fly, the less time an enemy has to react. Combining speed with stealth equates to a lethal one-two punch for any enemy.

However, even with all that gee-whiz technology at their fingertips, Raptor pilots still need support, especially with intelligence.

Avoiding the threat

Senior Airman Brandon Wright is a 27th Fighter Squadron intelligence analyst at Langley. The 23-year-old joined the Air Force so he could play an active role in defending his country.

"I refresh pilots on the threats and what can shoot them down," Airman Wright said.

At first, the mission planning briefings he gave to pilots made him nervous. But now, it's all in a day's work.

"We're working with top-of-the-line aircraft," the Airman said. "It's important to the United States and the mission. I have a role in that and my role is important."

Unlike the aircraft, none who works with the F/A-22 is new. They have different levels of experience that intertwine with the service's newest fighter aircraft program. However, no matter how long they've been in the Air Force, there is a pioneer spirit that permeates the wing, and each of them — from airman basic to colonel — play their part in helping provide air superiority for decades to come.

Stealthy Features

Stealth means flying undetected by the enemy. The Raptor excels at “stealthiness” in a variety of ways.

Illustrations courtesy Lockheed Martin Corp.

Internal weapons bays
In addition to a 20mm cannon build into the bottom of the aircraft, the Raptor can carry six AIM 120C missiles, or two AIM 9s. Or, it can be re-configured to carry two 1,000-pound Joint Direct Attack Munitions. It can also carry small diameter bombs. In either configuration, all weapons are carried internally to preserve the stealth characteristics of the airframe.

Mask of invisibility
The paint reduces the Raptor’s infrared visibility, making it hard to find by heat-seeking missiles. The paint scheme also makes it difficult to see with the naked eye. When radar operators look at the Raptor, its radar cross-section is thought to be that of a small bird or large insect.

Radome
It’s shaped to reflect radar signals at most frequencies. It’s also the first fighter to feature a frameless canopy, eliminating radar returns. Since the pilot’s helmeted head is a sounding board for radar, the aircraft’s canopy glass is coated with a film that allows upwards of 85 percent of visible energy to pass through it. The film reflects the majority of the radar energy.

Super-duper fast
The Raptor’s supercruise capability is another stealth contributor. Not only does it allow the pilot to get in and out quickly, spending less time in hostile territory, it reduces the jet’s wake signature. An aircraft with full afterburners on creates a significant radar return. Since the Raptor can go supersonic without afterburners, its radar signature is insignificant.

Shapely aircraft
Viewed head-on, the Raptor presents a low-height triangle that makes it appear to crouch on the tarmac. The fuselage and canopy features sloping sides and the fins tilt outward. Engineers ensured that major surfaces were not parallel to each other. All these design features minimize radar return, resulting in a stealthy aircraft.

History of America’s future fighter

Late 1970s It’s the final decade of the Cold War. The Air Force and contractors are studying various stealthy aircraft configurations. Such studies helped design the first F-117 Nighthawk. However, the Air Force wanted more for its next generation fighter plane.

1981 Development begins on advanced tactical fighter program to meet what is perceived as a growing Soviet air power threat, and to replace the aging F-15 Eagle.

1990 Air Force selects Lockheed’s YF-22 design for its next future fighter.

1994 The number of F-22s scheduled for procurement is reduced to 442 aircraft, down from an expected purchase of 750.

1997 The Quadrennial Defense Review cut the number to 339. On April 9, Lockheed-Martin-Boeing rolls out the first Raptor.

1998 In February, the first F/A-22 is delivered to Edwards Air Force Base, Calif. In October, the aircraft travels faster than the speed of sound for the first time — 51 years to the week after the sound barrier was broken over Edwards.

2003 The F/A-22 Combined Test Force at Edwards Air Force Base, Calif., puts the Raptor through its paces.

2005 The 1st Fighter Wing at Langley Air Force Base, Va., is the first operational base to receive F/A-22s.

Lifted to Safety

Air Force helps thousands in wake of Hurricane Katrina

In late August 2005, in what some are calling "America's Tsunami," Hurricane Katrina devastated the Gulf Coast region along Louisiana and Mississippi's borders. The storm's aftermath will produce numbers most find difficult to comprehend — billions of dollars in damages, millions of individual lives affected, hundreds of thousands of displaced people.

But, these numbers have little meaning to the child pararescueman Tech. Sgt. Lem Torres (right) rescued Sept. 2 from the top of his flooded home.

That child and more than 4,500 others were snatched from life-threatening situations by Air Force search and rescue crews during the first week following landfall of one of the most powerful hurricanes to hit the United States in decades. Additionally, 8,000 Reserve, Guard and active duty Airmen delivered more than 9,000 tons of cargo and flew over 20,000 passengers, including 2,500 patients. And, the Air Force's 4th Air Expeditionary Group Medical Squadron treated more than 5,500 patients in a make-shift "field" hospital staged at the Louis Armstrong New Orleans International Airport.

But it's not the numbers that tell this story. It's the actions of individuals like Sergeant Torres, from Moody Air Force Base, Ga., that reflects the compassion of Airmen everywhere.

The following pictures portray a small number of the hundreds of stories Airmen were a part of during the early days of this catastrophe.

opening photo by Staff Sgt. Manuel J. Martinez

by Photographer's Mate 1st Class (AW) Brien Aho

Mass evacuation

Aeromedical personnel from Scott Air Force Base, Ill., and Lackland Air Force Base, Texas, (right) work to evacuate patients from the New Orleans international airport. The Airmen set up a Mobile Aeromedical Staging Facility, working around-the-clock, to treat thousands of survivors. During the onset of the hurricane, Keesler Air Force Base, Miss. (below), took a major hit. The massive storm devastated the base and claimed the base's once vibrant training mission. More than 2,400 students and non-essential personnel were evacuated from the base.

by Master Sgt. Lance Cheung

courtesy photo

by Master Sgt. Lance Cheung

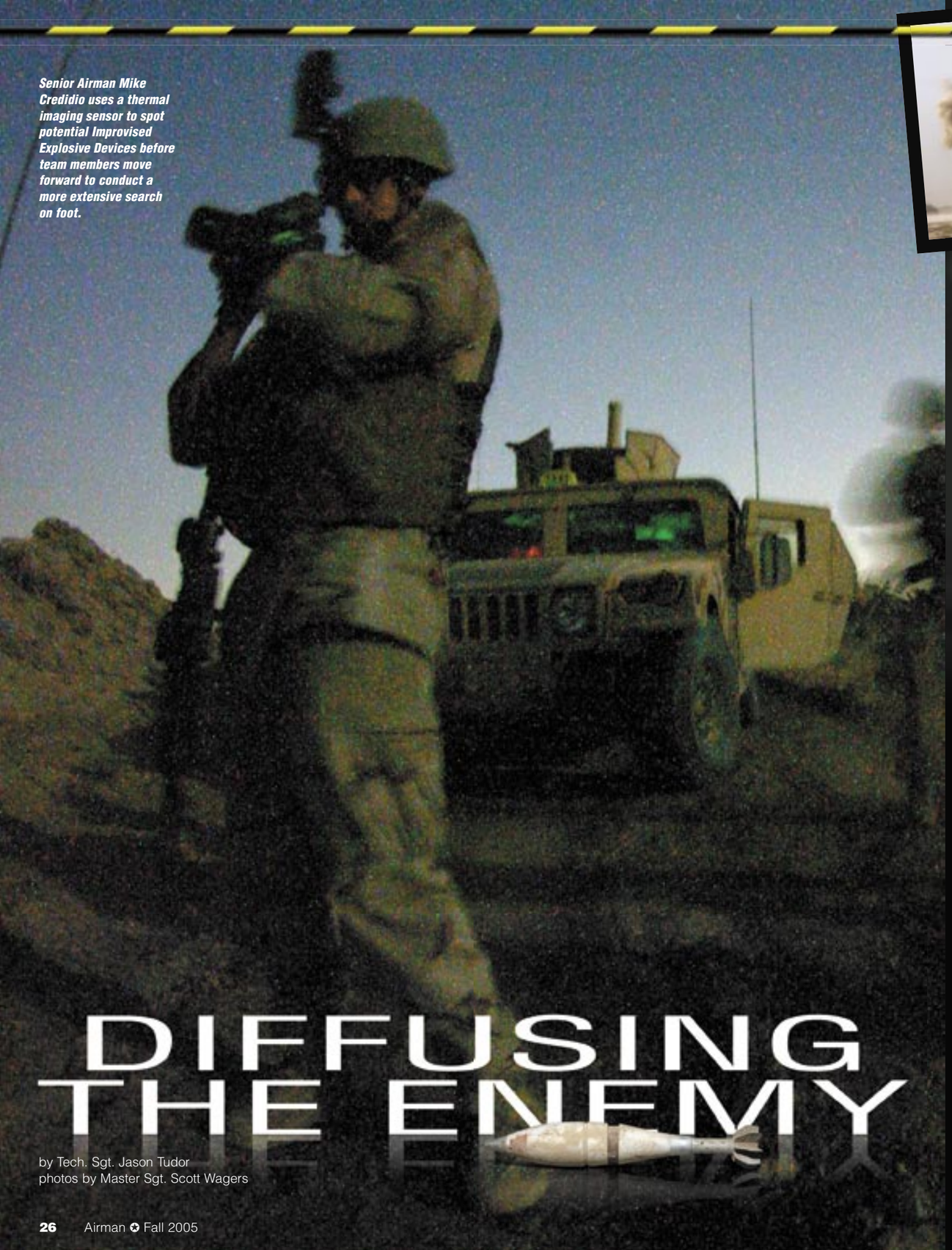
Looking for rest

Air Force search and rescue crews took to the skies, evacuating thousands from the New Orleans area (right). A large number of evacuees were taken to the international airport (bottom) for initial medical care. Airport terminals turned field hospitals were immediately established. While many sought medical attention, others reunited with family members. Just one week following Katrina, Airman Basic Tylar Pittman (below) from Lackland Air Force Base, Texas, reunited with her father, Timothy. Mr. Pittman was left homeless after the storm and evacuated to San Antonio. Their emotional reunion was the first time the two had seen each other in three years.

by Tech. Sgt. Mark Borosch

by Master Sgt. Scott Reed

by Master Sgt. Lance Cheung

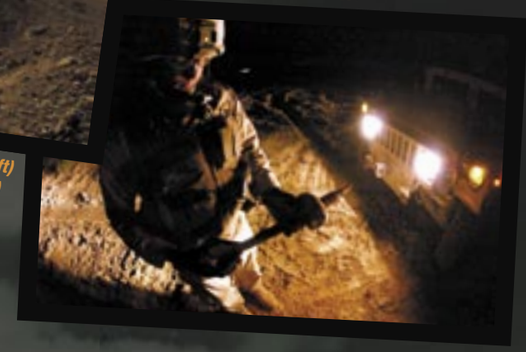


Senior Airman Mike Credidio uses a thermal imaging sensor to spot potential Improvised Explosive Devices before team members move forward to conduct a more extensive search on foot.

DIFFUSING THE ENEMY

by Tech. Sgt. Jason Tudor
photos by Master Sgt. Scott Wagers

After C4 explosives are used to destroy ordnance, (left) a group of Airman from Sather Air Base, Iraq, (middle) view the blast site.



Senior Airman Mike Credidio (below) holds a Russian Sabot kinetic energy weapon found during a search of a field suspected of serving as a launch site.

TEAM DISARMS IEDs ONE AT A TIME

The thumbtacks number in the hundreds. Blue. Yellow. Red. Green. White. They cover a large white map of Baghdad's southwest side like some creation Picasso might have made on a child's Lite-Brite toy.

Red tacks are the favorite for dirty, worn thumbs that must press them into the map. Each time a member of the Air Force explosive ordnance disposal team at Sather Air Base, Baghdad, Iraq, pushes one in, it means they destroyed another Improvised Explosive Device that could have potentially killed someone.

The yellow (unexploded ordnance), white (weapon caches) and blue tacks — representing an EOD response where nothing was found — are just as important. A red tack with a black top means something's already exploded.

Using a variety of high-tech equipment, special clothing and training, the 12 members of the EOD team have dealt with 62 IEDs and 1,685 UXOs in just 90 days. They've destroyed almost 54,000 small arms and a van packed with about 700 pounds of explosives.

Given the danger of their mission, Tech. Sgt. Michael Lenfesty said there's no place he'd rather be working.

"This is the culmination of all of our training in our EOD career," said the EOD craftsman.

The work is "feast or famine," he said. Some days there are no calls. On others there may be eight or nine.

"We're not typical emergency responders, but we do respond to certain emergencies," the sergeant added.

The team's area of response includes the Baghdad International Airport complex plus a chunk of land outside the wire that amounts to an area about twice the size of Washington, D.C. They are among few Airmen at Sather who go outside the base perimeter. Within minutes of receiving a call, the EOD team suits up with 45 pounds of extra gear and roll out in their armored vehicles. They may respond to a simple call like picking up an unexploded rocket or may spend more than four hours disarming a roadside IED. All the while, looking for additional hidden explosives set to specifically kill EOD responders.

Inside the wire and the 447th Air Expeditionary Group, people like Senior Airman Nicole Gonzalez are EOD's eyes and ears. Airman Gonzalez is part of the 447th Air Expeditionary Group readiness team, who teaches others how to spot UXOs. Her team frequently uses all-terrain vehicles to conduct searches throughout the base. She's been close — too close — to the action three times so far, she said.

One order reads: "There is no "safe" procedure for rendering safe and disposal, merely a procedure which is considered least dangerous."

"We were pouring cement for a tent and all of a sudden, a UXO rolled out. We thought it was a rock. Then, we went, 'Whoa!' and realized it wasn't a rock," she said. "We cleared the area and called EOD. They made it safe, but it was a live one."

Explosive ordnance disposal practitioners know their work isn't an exact science. Even their technical orders shout, "good luck!"

One order reads: "There is no "safe" procedure for rendering safe and disposal, merely a procedure which is considered least dangerous."

Another more tongue-in-cheek phrase says that: "EOD is a science of vague assumptions based on debatable data taken from inconclusive experiments with instruments of problematic accuracy by persons of questionable mentality."

While ambiguity appears to abound, all the EOD troops agree they're happy to be doing their work in the "real world." Senior Airman Mike Credidio, who's been disarming explosives for a year and a half, said the hands-on work is amazing.

"It's a rush. It's always a rush. We actually get to do our job here," he said. The job changes every day, so "the enemy is constantly changing how they set up IEDs for us and we keep changing with them, and beating them every time."

Almost gone are the days where a human has to walk up to an explosive to render it useless. Now, technicians use a herd of robots. The larger robots are actually used to view and disarm a bomb, using metal claws, shotguns and other means.

EOD has turned toys into tools. Radio-controlled off-road vehicles formerly raced as hobbies have turned into couriers. The senior airman said the "Bomb Bots" carry tools or other items to the larger robots during an incident.

At the end of each day, colored thumbtacks will continue to be pressed into the map. However, Sergeant Lenfesty said, the goal is to ensure, regardless of what color is added, everyone involved is safe.

"When we pull up to a roadside bomb, past a convoy of troops that's three miles long, take care of the threat and make sure those people are safe, that's what matters," he said.

Beyond Words

Students embrace new languages and cultures

by Maj. Kimberly Tebrugge
photos by Master Sgt. Lance Cheung

One of the most effective tools in breaking barriers between nations isn't something you hold in your hands. But every deploying Airman should pack it in their rucksack — an open mind. This means having the ability to absorb and comprehend new cultures. Listening to words, catching the tension, questions or compassion in another's voice. And, perceiving body language and communicating with the people living in the numerous countries Airmen have become immersed in over the past several years.

The Defense Language Institute located at Presidio of Monterey, Calif., cultivates an environment for open minds. Here, 3,500 active-duty and Reserve students from all four services explore their own personal journey toward understanding foreign languages and ideas.

Arabic, Russian, Korean, Persian-Farsi and Chinese are just a few of the 26 languages taught. Course durations range from two-week refreshers to a full 18-months. But regardless of the course, a strong sense of open-mindedness prevails.

Another world

"People everywhere are essentially the same. They may be called by different names but our values … our family life is essentially the same," said Airman 1st Class Jakob Hall. After basic training, the 23-year-old arrived at the school for a crash course in Pashtu, the official language of Afghanistan. A self-described 'country redneck' from conservative East Texas, Airman Hall considers it "a big step out" just coming to California. To then focus on a language and people from the other side of the world is even more bizarre.

For the past 40 weeks, Airman hall has learned to write, read, speak and understand an increasing amount of the language. In a typical day he spends six hours in a classroom. He has an immense respect for his professors.

Graduates of the Defense Language Institute hone their skills to speak, listen, read and write new languages to support worldwide operations as linguists or international specialists. Airman 1st Class Richard Moon, left, spends much of his day listening to the Pashtu language. Airman 1st Class John Cirillo, right, practices Arabic, one of the many languages taught at DLI, by describing about the friendship he shares with his sister.

"I think each of our four teachers have at one time, over the last 20 years, been imprisoned, mostly by the Taliban," he said.

In addition to learning about the language, Airman Hall is learning about the people — their intense love for family; their extreme hospitality and generosity; and how they tolerate destitution or hunger but can't accept even the hint of insult.

"It puts a special place in our hearts for the people," the future linguist admits.

In the evenings, he spends an additional two to three hours doing homework. The schedule is relentless. When talking to his wife, he sometimes forgets himself and speaks Pashtu, expecting her to understand.

He's not the only one who finds it tough. Airman 1st Class John Cirillo, an Arabic student, is single and lives in the dorms. He finds the schedule just as demanding. Armed with an intelligent expression and rimless glasses, he looks more like a doctoral student than a first-term Airman.

"We learned to write the entire 26-letter Arabic alphabet in the first eight days of class," he recalls.

There are days when he thinks his brain won't absorb one more vocabulary word, but his instructors warned him about "plateauing," and he finds solace in knowing it's a normal process he must push through.

The Airman said, "just having an open mind and realizing this is just the genesis of my experience" helps him cope.

"Our instructors told us to think of ourselves like 5-year-olds, and when we graduate, we'll almost be 8th graders," he said.

It's a blend of humility and determination. Students are continuously tested throughout their DLI training and must achieve a high level of proficiency to graduate.

"I've always had a passion for learning languages … so it makes it that much easier to do my job," Airman Hall said.

But in the last Pashtu class, only two of the 15 students passed on the first try. He only has seven more weeks until he tests to graduate and feels the pressure. For Airman Hall, it's not just a test of his skill, it's a right of passage into his new career where he hopes to play a part in changing the world.

"It really moves me to try to help these people, to better their situation, that [our instructors] can go back there one day without fear of being killed," he said with an air of seriousness.

During a Korean class outing, Airman 1st Class William Nash (center), samples some of the many types of Korean food offered at the Han Kook Super Market in Sunnyvale, Calif. The region surrounding the language school is conveniently international.

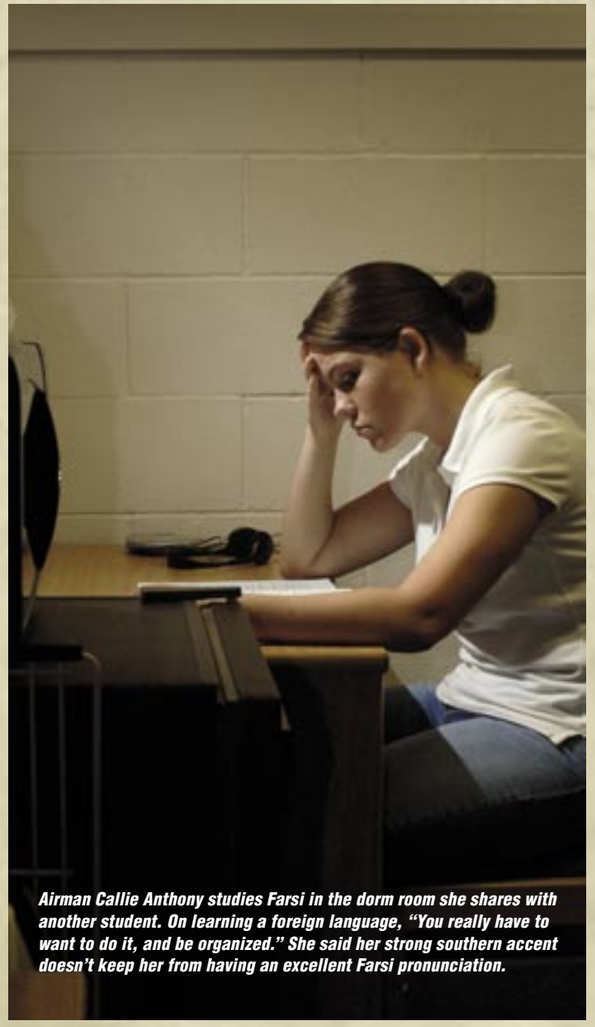
The evolution

The training environment has constantly evolved since the school held its first class November 1, 1941, teaching 60 students (mostly Nisei, or second-generation Japanese-Americans) in an abandoned hangar.

Thanks to a well-funded program, they are able to make classes smaller (6 to 8 student) for increased one-on-one time for students and instructors. Almost every instructor is a native speaker of the language they teach, and they are carefully selected for diversity in age, gender and nationality to offer varying perspectives. Many have experienced a world ravaged by violence between countries or political factions, and consider their time with students as a contribution to world peace. Instruction goes far beyond harping on grammar skills.

"Arabic and culture go hand in hand, one is an umbrella under the other. To understand the language you have to go back to the culture and see how the word was first used," says Bashar Masri, a DLI Arabic instructor for two years. "We begin with someone who doesn't know how to say 'hi' in Arabic, and in the end we are

Mr. Bashar Masri prepares material to teach his Arabic language students. As one of the younger professors, he offers "new blood" to the school. He uses textbooks, newspapers, music, films and television to offer diverse but relevant cultural and linguistic exposure to Arabic-speaking countries.



Airman Callie Anthony studies Farsi in the dorm room she shares with another student. On learning a foreign language, "You really have to want to do it, and be organized." She said her strong southern accent doesn't keep her from having an excellent Farsi pronunciation.

discussing the political situations in Iraq."

Mr. Masri, 27, is the average age of most of his students. He attended a U.S. university and talks to his students using colloquialisms they understand. They respectfully call him Ustath, or professor. But mutual respect, even friendship, grows during their 63 weeks together.

"I treat them as my friends, and they treat me like a friend who knows more about Arabic than they do," Mr. Masri said. He often knows what questions students will ask as soon as they raise their hands, because he considers what he would ask if he were them.

As students compare and contrast aspects of American culture with those of another country, a shift in thinking away from the differences in food, language or dress begins to highlight the similarities of how people of other cultures think, feel and live.

Mr. Masri watches his students dissolve stereotypes as even apparently drastic differences became smaller within the context of understanding.

For an extended story, additional photos and to hear examples of students speaking in Pashtu and Arabic, go to www.af.mil/news/airman.

He says that in Arab-speaking countries, if someone comments that he admires his friend's jacket, social customs lead the friend to remove his jacket and give it to his friend as a gift, on the spot. Even if it's the only jacket he owns.

A foreign concept to Americans, to some it may seem overly presumptuous, bordering on absurd. But an increased understanding of the Arab people clarifies and suggests a response to what could otherwise be an uncomfortable situation.

"The person should explain that while they might want to give the guy his jacket, he needs it to perform his duty and he cannot offer it," Mr. Masri advises if an Airman were complimented on their uniform jacket. "This offers a polite way out and shows an understanding."

Bridge between nations

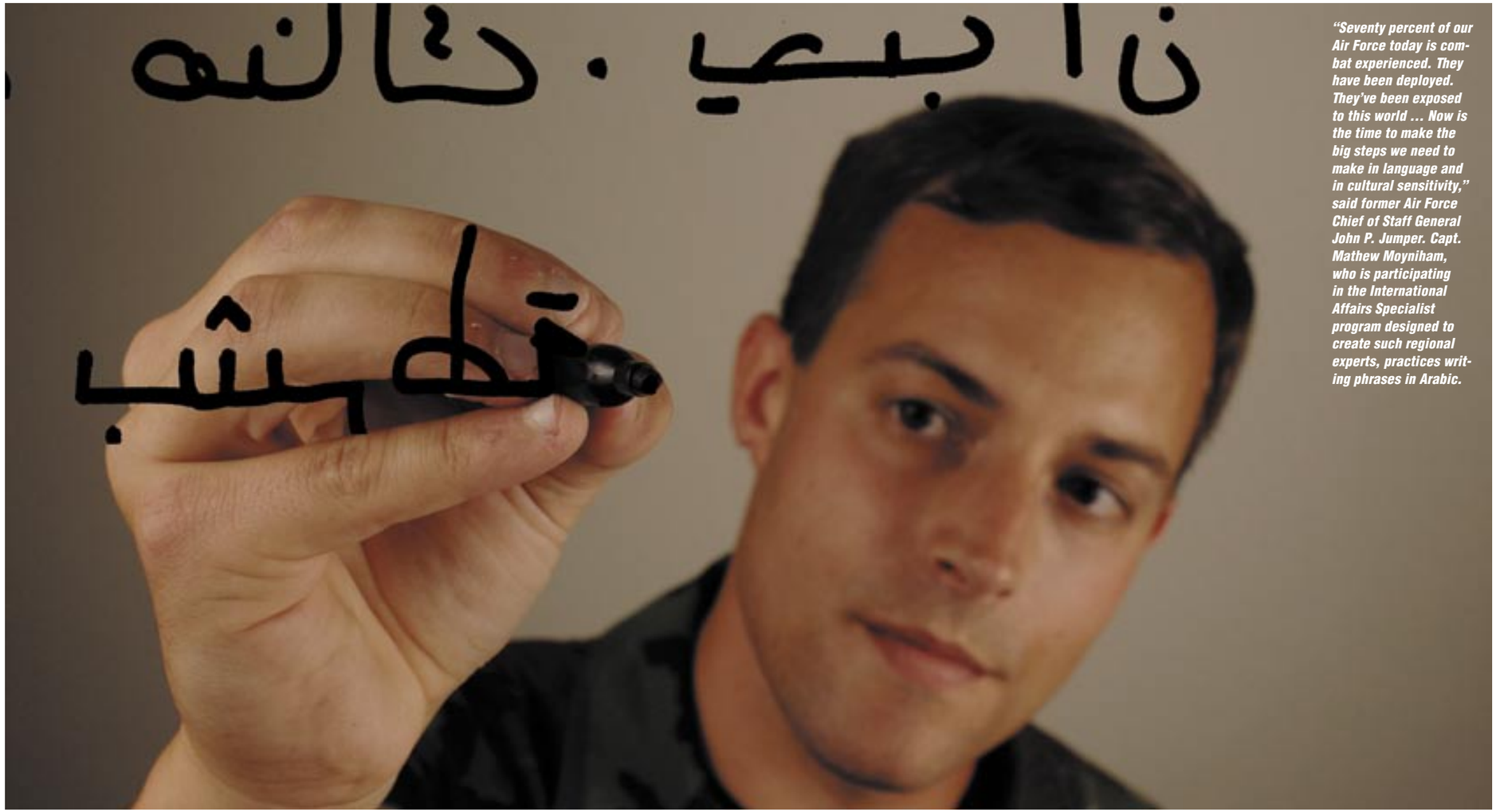
While DLI provides the environment and tools each student needs to gain a deeper understanding of a language and culture, each student personally makes the information intrinsic and decides what to do with their new skills.

Students say they often feel a deep respect for the people who speak the language and live in the countries they study. From the bedrock of respect and the stepping stones of language and cultural insight, a natural path is worn toward true understanding. These linguists-in-training know speaking a foreign language can take them to the forefront of world events. But true understanding begins by first appreciating a new language and the people who speak it. Then, becoming conscious of one's own culture in context with the rest of the world. In the end, they will act as the bridge that connects these two different ways of life.

Beyond DLI

After a year or more of language school (course length varies based on the difficulty of the language), linguists attend yearlong intelligence training at Goodfellow Air Force Base, Texas. Next, they attend the 2-and-a-half week Survival, Evasion, Resistance, Escape course at Fairchild Air Force Base, Wash. Finally, they receive their specialized training as either aircrew or ground linguists and settle at their respective bases.

What begins as limited language ability becomes limitless over the course of a career. Linguists spend four hours a week refreshing and advancing their language studies and take intensive refresher courses. DLI offers recurring training through videoteleconference, brings former students back to the school, and sends DLI instructors out to necessary bases on a full- or part-time basis. The school also sponsors language courses online through the Air Force Portal (https://www.my.af.mil/iaw/IAW/language and click on Rosetta Stone), available to former students and all interested military officers. They hope to expand the contract to include all interested Airmen in the future.



"Seventy percent of our Air Force today is combat experienced. They have been deployed. They've been exposed to this world … Now is the time to make the big steps we need to make in language and in cultural sensitivity," said former Air Force Chief of Staff General John P. Jumper. Capt. Mathew Moyniham, who is participating in the International Affairs Specialist program designed to create such regional experts, practices writing phrases in Arabic.

An International Affair

Specialists broaden minds and careers

by Maj. Kimberly Tebrugge
photo by Master Sgt. Lance Cheung

The Air Force maintains a global presence with more than 21 percent of its members stationed at 14 overseas locations, and members deployed to every continent. To be effective and considerate guests in our host nations, cultural understanding is crucial, foreign language proficiency is a huge plus and an understanding of world affairs quickly proves ignorance isn't bliss.

In the past, the Air Force selected officers with such international awareness and skills for the Foreign Area Officer program. Today, a more proactive approach targets competitive senior captains and majors for the International Affairs Specialist program. If selected, they are offered an internationally-focused advanced degree and attend language training at the Defense Language Institute located at Presidio of Monterey, Calif.

During subsequent assignments, they will employ their language skills and experience to help pursue regional stability and contribute to multi-national operations.

"International Affairs Specialists provide deeper understanding of factors influencing nations or groups that threaten U.S. interests while enhancing the effectiveness of U.S. forces partnering with multi-cultural coalition forces," said Deputy Undersecretary of the Air Force Bruce Lemkin, who provides policy oversight and guidance for international programs supporting national security objectives. "The goal is to create a true regional expert."

Capt. Mike Murphy, a communications officer, is currently studying Arabic at DLI. He entered the program as a foreign area officer and graduated from the Navy Post Graduate School in Monterey last year. His interest in foreign affairs was heightened while stationed in Germany, where he saw the vast difference a small amount of effort or interest in a foreign culture makes to a host nation.

"If you make an effort to understand another culture, it's so much easier to make headway [in the mission]," he said.

A transformation of the Foreign Area Officer program, the IAS program broadens career experiences through demanding international and political-military assignments, as opposed to cross-training into a distinctly new career field.

Approximately 75 percent of IAS assignments are joint duty and 50 percent of the assignments are overseas assisting embassies, combatant commands and regional major commands with significant opportunities remaining within the United States.

Interested officers should submit a transitional officer development plan to their primary career field assignments team, expressing desire for IAS development.

International Affairs Specialist program follows two tracks

1. Regional Affairs Strategists spend three years earning a regionally-oriented graduate degree through the Naval Postgraduate School, followed by language training at the Defense Language Institute. Following training, they will alternate assignments between their primary career field and RAS opportunities.
2. Political-Military Affairs Strategists earn an international affairs-related degree in one year at through Air Command and Staff College or NPS. They develop broader, less specialized skills, gaining an advanced awareness of the international context in which the United States applies air and space power. Selection for this track occurs in conjunction with Intermediate Developmental Education, typically around the 10-12 year commissioned service point.

Regardless of the track, international affairs specialists' careers are carefully managed to remain competitive in their primary career fields.

For more information, check out their Web site at https://www.my.af.mil/iaw/iaw through Air Force Portal.

ALL TIED UP

Top 10 deployment uses for 550 cord

by Airman staff

It's thin, strong, resilient and possibly the one thing, besides your extra undies, that you don't want to forget to pack with your deployment gear — parachute cord. Known to many as 550 cord, this super utility item is not only useful for jumping out of airplanes (hence the "parachute"), but works wonders in the deployed environment. Why 550 you ask? Because it can withstand up to 550 pounds.

Any application that calls for strength, durability and mildew resistance — 550 cord is "your man." Use it as is, straight off the spool, or divide the inner strands for fishing line, dental floss, or thread to sew up a war wound.

The usefulness of this cord is only limited by imagination. So the Airman staff summed up what we consider the "Top 10 deployment uses for 550 cord." Though we know the list is not all inclusive, we consider these 10 the most functional and entertaining.

1 Tent divider

Getting too much visual information from your tent mate, string up some modesty with an extra blanket or poncho. For a groovy appeal, add vertical strings with beads.

2 Weave a "buddy bracelet"

Start a new fad and weave a "buddy bracelet." Unlike other bracelets that have been outlawed for uniform wear, green 550 cord will always be in style. Not only that, but it's easy to wash and can be adjusted to any wrist size. If the correct knot is used, it can also be easily removed. And if you run out of cord for the other uses, just unravel your bracelet!

3 Lanyard items to your web belt

Don't find yourself "without," keep things with you like penlights and pistols. Those summer camp square braids are still cool.

4 Plumb line

Need to ensure something is straight up and down? Tent pole, volleyball pole, poster of the Olsen twins? Just tie a small weight on one end of the cord, then hold the other end near the top of the object you want straight. Once the weight quits wobbling around, you've got a plumb line.

5 Weave a hammock

Whether a master weaver, or just able to download the handbook from the Internet, once you've knotted together a hammock, you'll either be the envy of everyone in camp, or known as the person with the most amount of time to waste. You'll need nearly 800 feet of cord, tireless hands and an inordinate amount of time and patience. But once you're done, your R&R is located in your tent.

6 Soap on a rope

It's not what you think. This is actually a good idea. It's like making a little hammock for your soap, which will not only allow it to dry quickly, but make it easier to carry.

7 Emergency shoe laces or belt

Figure several feet for each boot, melting the ends to prevent fraying.

8 Sunglasses strap

While blasting down a bumpy road dodging IEDs in a HUMVEE, nothing says battle ready better than knowing your shades aren't going anywhere.

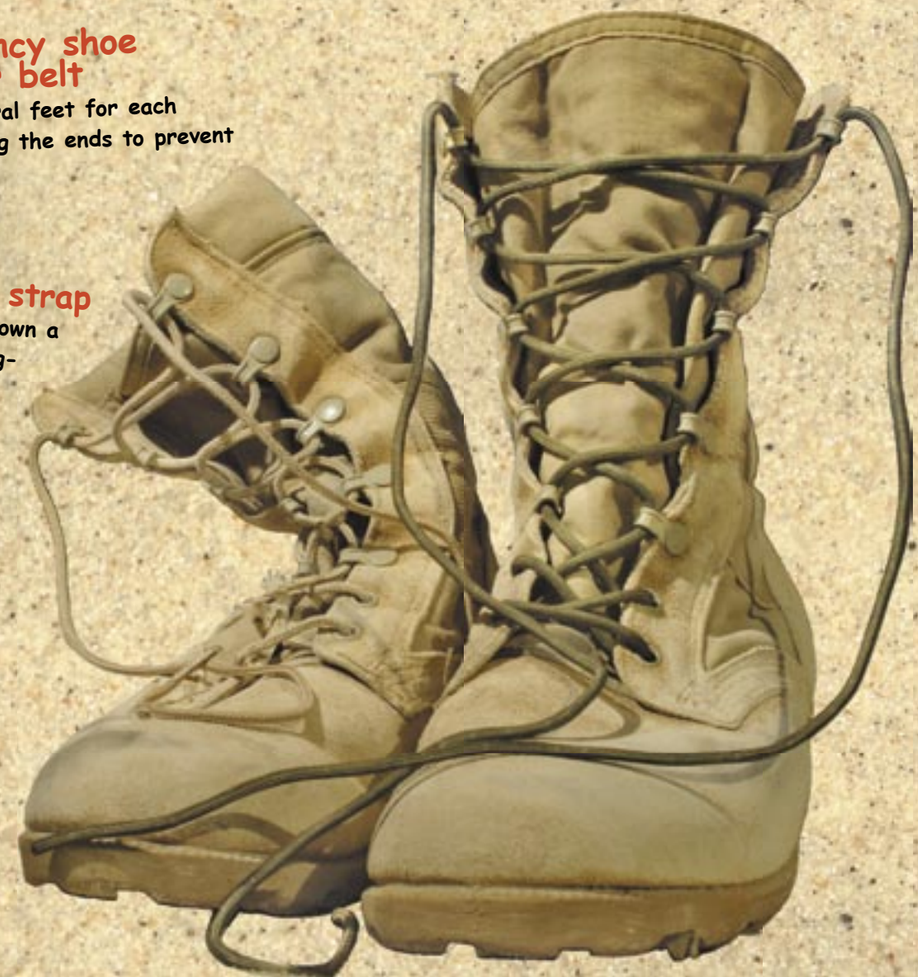
9 Tie up unruly tent mates

Deployment length can sometimes wear on relationships, particularly those with tent mates. If you're tent mate is resembling more of a shadow, play "David Copperfield" and see if he can get loose while you grab some time alone.

10 Couch

Sometimes you just need to lean back and relax without having to lie down. Tie two cots together and you've got yourself a couch — next step, recliner and loveseat.

Got more clever uses for 550 cord? Send them to editor@afnews.af.mil and we'll post them on our Web site at www.af.mil/news/airman.



WET N' WILD AT FAIRCHILD

story and photos by Master Sgt. Scott Wagers

After completing a one-minute buoyancy test, underwater swim and egress familiarization training, five students (above) approach the Modular Egress Training System for the first of four dunks. To maintain the 1:2 instructor-to-student ratio, three instructors accompany them. A water survival instructor (right) shows Airman 1st Class Jonathan Butler (blue helmet) and fellow students, techniques they need to work on for their next three dunks. A water survival instructor (background courtesy photo) observes a student making his way out of the training system. The METS is the first of its kind in the Department of Defense and can be configured to mirror all helicopter platforms and the rollover that occurs after crashing in water.

It's every helicopter aircrew's worst nightmare. A routine sortie over open water suddenly becomes an in-flight emergency. Now, you're being yelled at to brace for a hard landing and an underwater egress as the chopper begins a corkscrew-shaped spiral towards the big blue ball.

Fear hangs in the air like a kite over a power line. Everything that is happening is out of your control. For the next 60 seconds, **your thoughts and actions will mean the difference between life and death.** As fast as you can after the impact, you take a final gulp of air and hope you remember what you learned in class earlier that morning. And, if your memory fails you, at least there are five divers swimming nearby to see that you make it to softball practice later that night.

This scenario is not the latest episode of Fear Factor, it's the Air Force's SV84 Helicopter Underwater Egress Course at Fairchild Air Force Base, Wash.

"It's hard to instill a positive mental attitude under adverse conditions," said Tech. Sgt. William Shirley, Water Survival Flight chief, of the one-day course. "Due to feedback from crash survivors and field research, we've determined that our training increases the [aircrew] water crash survivability rate by 60 percent."

Using a team of nine Survival Evasion Resistance Escape instructors, a pool and a crane-hoisted simulator called the Modular Egress Training System — the first of its kind in the Department of Defense — between 800 and 1,000 Air Force and Coast Guard aircrew members are trained each year.

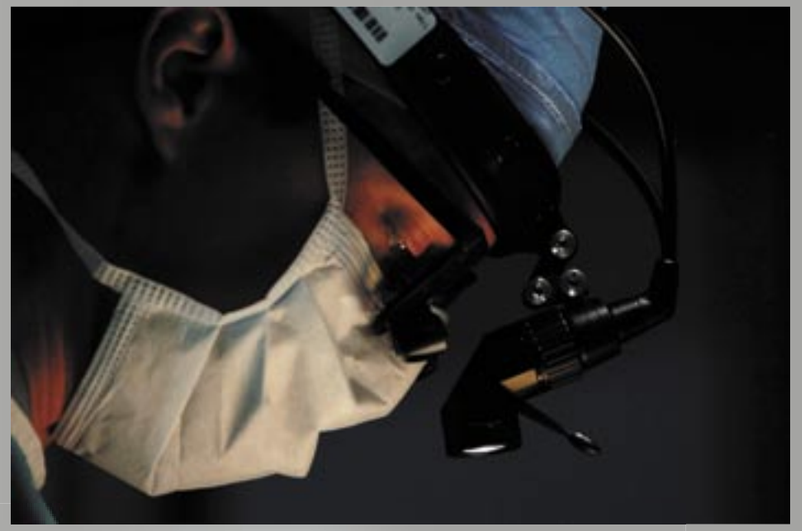
Remaining cool as a cucumber throughout the entire class, Airman 1st Class Jonathan Butler of Keesler Air Force Base, Miss., said there were no surprises because peers who graduated ahead of him had briefed him on the details of the course.

"I knew that if I just kept calm, listened to what the instructors had to say and remembered my reference point for the exit that everything would be O.K."

The combat control student mentally prepared himself for the last of his four dunks — performed blindfolded — by closing his eyes during the first three.

Another benefit to his strategy: **"By keeping your eyes closed, you don't notice other people panicking,"** he said.

Sergeant Shirley said panic is not uncommon for new students. "If someone says to you 'We're going to crash this helicopter.' The first thought that naturally comes to mind is, **'I'm going to die!'** But if you've been through our training — your response will be different."



Dr. (Maj.) Ted Ferguson performs reconstructive surgery on Adrian Puata (far right) to repair his cleft lip. Doctor Ferguson, and members of the plastic surgery team from Wilford Hall Medical Center at Lackland Air Force Base, Texas, operated on 30 patients during a medical readiness exercise in Cuenca, Ecuador. This is just one of many exciting opportunities that Air Force medical personnel have the opportunity to be involved with. For more information, go to www.airforce.com.careers/healthcare/careers.php.

Faces of change

photos by Master Sgt. Efrain Gonzalez

Having a cleft lip or pallet may not seem like a big deal to the average person, but to those afflicted, it affects the way they talk, eat and look. Especially to teenagers, having a cleft lip or pallet repaired is everything.

So it wasn't surprising when children and adults from throughout the country made a pilgrimage to Cuence, Ecuador, to receive free treatment from a plastic surgery team deployed from Lackland Air Force Base, Texas. The team repaired 30 patients' cleft lips and pallets during their two-week stay in July.

"I can affect their lives early on while they're still in school and have an already difficult time relating to their peers," said Maj. (Dr.) Ted Ferguson, a plastic surgeon assigned to Wilford Hall Medical Center at Lackland.

Sergeant 2nd Class Luis Gerardo Martinez, Ecuadorian Army medical instrumentation specialist (top), looks on as Dr. (Col.) Gary Harishita (kneeling) evaluates Eddy Cedillo Chavez's speech vocalization before performing surgery to repair his cleft lip and pallet. Patients will generally show significant speech improvement after surgery. Dr. (Maj.) McClure Jones (top right), anesthesiologist, keeps records of patients still requiring surgery. Maj. Patricia Bradshaw (middle right) monitors Eddy's post operation recovery. Eddy's operations lasted three hours. Major Bradshaw and Dr. (Capt.) Dale Capener (bottom), hydrate Adrian Puata after his surgery while Ecuadorian students take a break.

Eddy seeks the comfort of his father's lap as he and his dad make the three-hour drive to the mountain ranges of Ecuador's interior where they live in a small village.

Eddy's Story

by Master Sgt. Orville F. Desjarlais Jr.
photos by Master Sgt. Efrain Gonzalez

The children of Ecuador have their fair share of problems to deal with on a daily basis, but 7-year-old Eddy Cedillo Chavez has more challenges than most.

It's not the poverty that once bothered him. Or the fact that he has no arms. What really troubled Eddy was his cleft lip and pallet.

Teachers and friends didn't understand him when he talked. When he checked into a military hospital in Ecuador, Air Force plastic surgeons deployed there during a medical readiness exercise asked him to say "baby."

It came out, "Hmm, Hmm." One humming noise high, the other low.

The hole in the roof of his mouth prevented Eddy from forming plosives — sounds produced

by blocking the flow of air through the mouth and nose. He couldn't pronounce the letters p, b, t, d, k and g because air rushed through the hole in his pallet and out his nose. Only his family understood him.

He was also embarrassed when food came out his nose when he ate.

"Eddy is good," said Julio-Efrain Cedillo-Arran, Eddy's father, before the operation. "He's not scared. He wants to do it. He wants to be normal. He wants children to treat him normally and play with him."

Eddy's 40-pound structure looked small covered in blue hospital scrubs and wrapped in a white cloth. While waiting for the operation with his 30-year-old father, Eddy remained calm, which was surprising since it would be his third operation. The other two operations done by Ecuadorian doctors weren't successful. Side by side, father and son sat stoically.

Under the knife

Maj. Patricia Bradshaw, a nurse from Wilford Hall Medical Center at Lackland Air Force Base, Texas, chatted in Spanish with the two before she prepped Eddy for surgery. She was the team's primary interpreter and controlled the flow of patients in and out of surgery.

She also had the sad job of turning away patients. Before the medical readiness exercise began in mid-July, the plastic surgery team screened 45 Ecuadorians who wanted free operations. The team picked 30. A majority of the patients were children from underprivileged families. However, parents still approached the team daily, children in tow, seeking care.

"It broke my heart when so many people wanted help and we had to turn them away," Major Bradshaw said. "Every time we had to turn them away, a mother was heartbroken."

Dr. (Maj.) Ted Ferguson, a plastic surgeon, estimated Eddy's operation to last an hour and a half. He planned to repair Eddy's pallet. If he had time, he'd repair his lip, as well.

After Dr. (Capt.) Dale Capener, a resident anesthesiologist put Eddy out; the plastic surgery team placed an endo-tracheal tube down Eddy's throat so a machine could breathe for him. Sometimes, the anesthesia will cause a person to quit breathing. And since Eddy has no arms, they had to attach the IV unit to his ankle.

The machine that monitored his oxygen levels beeped every few seconds, blending in with the soft rock playing in the background. In blue scrubs and surgical masks, all that remained visible were the attentive eyes of the team.

On the wall hung a picture of the Virgin del El Cisne, a saint and protector of South American Indians. Ecuadorians are fiercely religious people. About 95 percent of all Ecuadorians are Catholic, influenced heavily by Spanish missionaries in the 16th Century. Before that, the Inca Empire ruled Ecuador.

Once everything was in place, Doctor Ferguson began surgery. During this medical readiness exercise, the two doctors in the team repaired more cleft pallets and lips in 12 days than they do in a year at Wilford Hall.

With intense concentration, Doctor Ferguson sliced into Eddy's pallet. When blood started to flow, surgical technician Master Sgt. Kelly Mathis wiped it away or used a suction hose, or the doctor used a tool that cauterized blood vessels to stop the bleeding.

After having already performed dozens of operations in the 10 days prior to Eddy's operation, the team was at ease. While the doctor and operating technician worked, the two anesthesiologists chatted about heart functions, while others in the room talked about great places to shop. All the while, the machine's steady beeps filled the room. It was all in a day's work.

When Doctor Furguson finished with his young patient's pallet, he decided to fix Eddy's cleft lip as well.

Road to recovery

After three hours, both operations were complete. Eddy was wheeled out into the recovery room. Confused from the anesthesia, Eddy was scared. He moaned, then gently started to cry. Major Bradshaw stroked his hair and called his name to try and sooth him. In a few minutes, he became his normal, quiet self.

"We waited about 20 minutes so he could clear his mind, then we cleaned him up so that when his father came back to visit him he wouldn't freak out," Major Bradshaw said.

The doctors kept Eddy for observation overnight, and then allowed him to go home the next day. Every time they completed a surgery, they felt great about their mission.

"I create an emotional attachment to all the little children," Doctor Ferguson said. "It's more rewarding because I can affect their lives early on, while they're still in school and have an already difficult time relating to their peers."

It was time to take Eddy home to the Andes Mountains north of Cuenca. His adobe and cinder block home is located above the clouds. There are no vehicles in the village — just horses, cows and chickens.

Holding Eddy in his arms on the way home, Mr. Cedillo-Arran was happy with the operation. He said Eddy awoke with no pain. He could also hear a vast improvement in his speech. Although doctors corrected his defects, Eddy will still have to visit a speech therapist to unlearn his former speech patterns, and then re-learn to speak properly.

But that's all he wanted all along.

To be normal. To be accepted. To be understood.

Julio-Efrain Cedillo-Arran feeds his son, Eddy (far right), breakfast before leaving the hospital for their home that rests nearly two miles high, above the clouds that skirt Ecuador's famous mountains (below). Eddy and his brother (right) are reunited at home where they enjoy Eddy's favorite sport — soccer.

AF changes fitness criteria

by Staff Sgt. C. Todd Lopez
Air Force Print News

WASHINGTON — Air Force officials announced a few changes to the physical fitness test.

Updates to Air Force Instruction 10-248 will include a change in how body composition is measured, a new table for the running portion of the test that takes into account the runner's elevation, and a change in the number of days an Airman must wait before retesting after having scored in the marginal category.

Under the original fitness evaluation, body composition scores were based on abdominal circumference only. The updated AFI will now direct that body composition also be measured using body mass index.

BMI is calculated by dividing weight in pounds by height in inches squared, and multiplying the result by 703. According to the Centers for Disease Control and Prevention, those with a BMI between 18.5 and 24.9 are considered to be normal. Those with a BMI of 25 or above are considered overweight.

Under the updated AFI, Airmen with a BMI of less than 25 will earn the full 30 points for body composition. For Airmen who score a BMI 25 and above, the results of the waist measurement would be used to calculate their test score.

Changes to the AFI will also include adjustment for those at high-altitude installations — those at installations with an elevation of 5,000 feet or greater. Officials will use the formula for altitude calculations recommended by the National Collegiate Athletic Association.

A final change is in the retesting time frames. For those who score marginal, between 70 and 74.9 points, the Air Force plans to correct the time to retest at 90 days. This will be consistent with the retest time for poor scores, those less than 70.

The Air Force continues to look at ways to improve the fitness evaluation and remains committed to the Fit to Fight program, said Lt. Gen. (Dr.) George Peach Taylor Jr., Air Force surgeon general, because the program has proven successful.

Air Force receives new leadership

SAN ANTONIO — Gen. T. Michael Moseley was sworn in as the next chief of staff of the Air Force following Gen. John P. Jumper's retirement ceremony Sept. 2 at Andrews Air Force Base, Md.

Gen. John D. W. Corley was chosen to fill General Moseley's position as vice chief of staff.

During General Moseley's Senate Confirmation hearing he said his priorities would be to further refine and improve joint warfighting skills, continue to strengthen the Air Force's greatest asset — its people — and to recapitalize the aging aircraft fleet to meet future warfighting needs.

General Moseley is a command pilot with more than 2,800 hours in the T-37 Tweet, T-38 Talon and F-15 Eagle.

He is a graduate of Texas A&M University where he earned both a bachelor's and a master's in political science.

Besides holding numerous operational assignments, he commanded U.S. Central Command Air Forces and served as Combined Forces Air Component commander for operations Southern Watch, Enduring Freedom and Iraqi Freedom.

General Corley, who was the principal deputy for the assistant secretary of the Air Force for acquisition, entered the Air Force in 1973 at the U.S. Air Force Academy and has commanded at the squadron, group and wing levels. He has more than 3,000 flying hours with combat experience.

As combined air operations center director supporting Operation Enduring Freedom, General Corley coordinated more than 11,000 combat missions striking more than 4,700 targets. His awards and decorations include the Defense Superior Service medal, the Legion of Merit and the Bronze Star medal.

Force Shaping Phase II evolves for fiscal 2006

by Master Sgt. Mitch Gettle
Air Force Print News

WASHINGTON — The Air Force achieved its congressionally mandated active-duty end strength of 359,700 Airmen for fiscal 2005. Force Shaping Phase II initiatives successfully reduced the overall size of the force; however, the Air Force still has more officers than authorized and Phase II will continue into the next fiscal year, beginning Oct. 1.

"We will now limit voluntary separation opportunities for active-duty enlisted Airmen, while maintaining voluntary programs for officers," said Brig. Gen. Glenn F. Spears, force management policy director on the director of personnel staff at the Pentagon. "We met our goals to balance and reduce excesses in our enlisted force, and we must continue to focus on shaping the officer force in size and skills."

Two force-shaping initiatives for the enlisted force will be retained: the "Blue to Green" option and the career job reservation program.

"Airmen who do not wish to obtain a CJR or do not want to retrain may apply to transfer to the Air Force Reserve or Air National Guard via Palace Chase, transfer to the Army via the Blue to Green program, apply for opportunities in civil service or separate upon fulfillment of their enlistment," General Spears said.

For Air Force officers, force-shaping opportunities are still available and will continue until the Air Force meets its end strength numbers for 2006.

"We currently have more officers than allowed by law, particularly in the junior grades," General Spears said. "This excess produces operational and fiscal costs — it restricts their opportunities to serve and to develop as leaders in our force, and it takes dollars from other validated requirements."

The latest force-shaping opportunities are now available on the Air Force Personnel Center Web site at www.afpc.randolph.af.mil/retsep/shape2.htm.

New housing allowance guidelines won't result in pay cut

by Army Sgt. Sara Wood
American Forces Press Service

WASHINGTON — Defense officials are eliminating the "geographic rate protection" clause that ensures servicemembers moving to a new area receive the same housing allowance as those already living there.

Geographic rate protection is expiring in January because basic allowance for housing rates have reached a level where servicemembers no longer have to pay out-of-pocket expenses for housing, said Col. Virginia Penrod, the Defense Department director of military compensation.

Servicemembers may still have to pay some out-of-pocket expenses if they choose to live above that level. Conversely, if servicemembers choose to live below the average level, they will still receive the same BAH rate.

Servicemembers still have "individual rate protection" as long as they stay within the same geographic area. If average housing costs in a given geographic area go down, people already living in that area continue to receive the higher amount.

However, servicemembers moving into that area receive the lower amount. Geographic rate protection was a temporary protection put into effect to prevent people of the same pay grade living in the same area from getting different amounts of housing allowance.

Rate protection was instituted in 2000 to ensure BAH rates were the same among like-pay grade individuals living in the same area while troops were still paying part of their own housing expenses, Colonel Penrod said. Now that housing allowance rates are high enough to cover servicemembers' entire housing expenses, geographic rate protection is not necessary, she said.

"It was a short-term program," she said. "We always had in our minds that we would eliminate the protection once the out-of-pocket (expenses) went to zero."

Each year, BAH rates are adjusted with input from military housing offices in the area. If it is determined the rate needs to be increased, all servicemembers living in that area will receive the increase.

Air Force approves wear of Afghanistan, Iraqi campaign medals

RANDOLPH AIR FORCE BASE, Texas — Air Force officials have authorized Airmen to wear the Afghanistan Campaign Medal and the Iraqi Campaign Medal.

The Department of Defense campaign medals apply to active-duty Airmen, reservists and guardsmen deployed on or after Oct. 24, 2001, for Operation Enduring Freedom and March 19, 2003, for Operation Iraqi Freedom.

Airmen must have been assigned, attached or mobilized to units operating in Afghanistan or Iraq for 30 consecutive days or 60 nonconsecutive days to be eligible. The ACM is awarded for service for all land areas within and all airspaces above Afghanistan. The ICM is for service covering all land areas within Iraq, all adjoining water areas out to 12 nautical miles and all airspaces above those areas.

Airmen are not entitled to more than one campaign and/or expeditionary medal for the same action, achievement or period of service. There are also no devices for either campaign medals or the Global War on Terrorism-Expeditionary Medal.

A period of service is defined as an area of deployment and includes the number of days criteria outlined above. Airmen begin a second period of service when they forward deploy or return to home station and then deploy later.

Airmen deployed to Afghanistan or Iraq, who have 30 consecutive or 60 nonconsecutive days between the eligibility period and April 30, may elect to wear either the appropriate campaign medal or the GWOT-E medal, but not both.

Those who deployed to Afghanistan or Iraq, who have 30 consecutive or 60 nonconsecutive days after April 30 can only earn the respective campaign medal for the area they served in.

The campaign medal for Afghanistan shall be positioned below the one for Kosovo and above the medal for Iraq. For more information, Airmen can contact their local military personnel flight.

'Hush House'

Once inside, you can scream as loud as you want. No one outside will ever hear you.

It's not a nightmare; it's an aircraft engine test facility. Within the insulated Hush House, test facility craftsmen like Staff Sgt. Chad Hancock run engines from idle to afterburner day or night to seek, find and fix problems without the worries of noise pollution.

Sergeant Hancock uses a portable maintenance aid to verify faults on F-15 and F/A-22 engines and to see how to correct the problem step-by-step. But as with most electronic gadgets, it's only as good as the operator handling it. It's a whole new generation of maintenance.

And for this sergeant, it's a childhood passion come to fruition. When he was little he loved taking things apart to see how they worked. So it was no surprise that he asked to work with jet engines when he joined the Air Force. Twelve years later the sergeant is on his way to another stripe and looking forward to many more years working in the field.

"I will retire from the Air Force for sure," he said. "Hopefully the experience I've gained will carry forward into the civilian sector."

by Maj. Kimberly Tebrugge
photo by Staff Sgt. Tanika Bell

"Every time I see an F-15 take off in afterburner, [it] still gives me a chill to know I had something to do with that. Now I get the same feeling when I see or hear how awesome the F/A-22 is."

Staff Sgt. **William "Chad" Hancock**
Test Facility craftsman
1st Component Maintenance Squadron, Langley Air Force Base, Va.
Number of Airmen in Aerospace Propulsion Jet Engine: 6,085
Years in the Air Force: 12
Hometown: Galax, Va.

HOW TO FOLD OUR NATION'S FLAG

ILLUSTRATIONS BY SETH FRAIL

OUR NATION'S FLAG HAS BEEN WAVING OVER MILITARY INSTALLATIONS, FEDERAL OFFICE BUILDINGS AND OUTSIDE OF AMERICANS' HOMES FOR MORE THAN 200 YEARS. AS MILITARY MEMBERS, WE SHOULD TAKE GREAT CARE WITH THE STARS AND STRIPES FOR IT IS RICH IN HISTORY AND A SYMBOL OF PRIDE FOR OUR COUNTRY. ONE SUCH WAY TO HONOR THE FLAG IS TO KNOW HOW TO PROPERLY FOLD IT.

1. HOLD THE FLAG WAIST HIGH. FOLD THE LOWER STRIPED SECTION OF THE FLAG OVER THE BLUE FIELD. THE FOLDED EDGE IS THEN FOLDED OVER TO MEET THE OPEN EDGE.

2. A TRIANGULAR FOLD IS THEN STARTED BY BRINGING THE STRIPED CORNER OF THE FOLDED EDGE TO THE OPEN EDGE. THE OUTER POINT IS THEN TURNED INWARD PARALLEL WITH THE OPEN EDGE TO FORM A SECOND TRIANGLE. THE TRIANGULAR FOLDING IS CONTINUED UNTIL THE ENTIRE LENGTH OF THE FLAG IS FOLDED IN THIS MANNER.

3. WHEN THE FLAG IS COMPLETELY FOLDED, ONLY THE BLUE FIELD SHOULD BE VISIBLE AND IT SHOULD BE FOLDED IN THE TRIANGULAR SHAPE OF A COCKED HAT.

FLAG FOLDING CEREMONY

A SCRIPT IS NOW AVAILABLE FOR USE DURING FLAG FOLDING CEREMONIES. THE NEW SCRIPT FOCUSES ON FLAG HISTORY AND ITS SIGNIFICANCE TO THE AIR FORCE AND IS AVAILABLE, ALONG WITH A DEMONSTRATION VIDEO, AT BASE PROTOCOL OFFICES. FOR MORE INFORMATION, CONTACT YOUR LOCAL PROTOCOL OFFICE OR BASE HONOR GUARD.

FOR MORE INFO:

FOR MORE INFORMATION ON THE PROPER CUSTOMS AND COURTESIES OF OUR FLAG, CHECK OUT AIR FORCE PAMPHLET 36-2241 PAGES 123-135, OR DOWNLOAD AT WWW.E-PUBLISHING.AF.MIL/PUBFILES/AF/36/AFPAM36-2241V2/AFPAM36-2241V2.PDF.

COMING TO A SCREEN NEAR YOU

So Airman has gone quarterly, but that doesn't mean the stories have gone away. Check out the Web site www.af.mil/news/airman for these features and more every month. Get instant notification when new articles are posted by subscribing at www.af.mil/subscribe, click "Airman magazine."

MANTA MANTA DON'T YOU WANT TO GO TO MANTA?

There's Airmen in Ecuador? Indeed. They're at Manta Air Base located in South America. When Airmen aren't working on their counter-drug operation mission, they're visiting Inca temples, enjoying the beach and mingling with the friendly people of Ecuador.

photo by Master Sgt. Efrain Gozalez

WHAT'S YOUR BMI?

It's simple really. A little basic mathematics and generally "normal" body type and you too might not have anything to sweat about the implementation of Body Mass Index calculations to the fitness score. But maybe what is unnerving is that most Airmen don't understand what BMI is, how important it is to their health, and how it will affect their score.

IMPRESSIONS FROM VOLKEL

Learn about one Airman's visit to a small munitions squadron located outside of Amsterdam. At Volkel Air Base, Netherlands, approximately 350 Air Force members and their families work and live with Royal Air Force comrades. While the mission may seem full of sacrifice, the tight-knit community makes this remote assignment a coveted one.

TOP 10 WAYS TO GET EDUCATED WHILE SERVING

You may never have an employer that is as willing to support your educational goals as the military. So don't let time or money stop you from furthering your education. Check out the top 10 ways you can "get educated" while serving.

CROSSING INTO THE BLUE

Being a scientist, civilian helicopter test pilot and educational wiz wasn't enough for Eric Schultz. He needed more, specifically, 750 more hours of flight time so he could quality for the astronaut program. Now 1st Lieutenant Schultz is speeding to that goal in an F-15 Strike Eagle.

THE FINAL FRAME

PEACEKEEPERS ON THE MOVE | *photo by* Senior Airman MIKE MEARS

Shrouded by the night sky, Rwandan Defense Force peacekeepers board a C-130 Hercules at Kigali International Airport, Rwanda, in late July. The Air Force is assisting in the rotation of approximately 1,200 Rwandan servicemembers to the Darfur region of Sudan — part of the larger effort to improve security and create conditions so humanitarian assistance can be more effectively provided to the people of Darfur. The multinational effort will ultimately allow the African Union to expand its peacekeeping force in Darfur from 3,300 to 7,700.